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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/800,703	03/07/2001	Dustin P. Wood	884.159US2	4036
21186	7590	12/15/2003	EXAMINER	
SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.			GRAYBILL, DAVID E	
P.O. BOX 2938			ART UNIT	PAPER NUMBER
MINNEAPOLIS, MN 55402			2827	

DATE MAILED: 12/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/800,703

Applicant(s)

WOOD, DUSTIN P.

Examiner

David E Graybill

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 30,35 and 37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 30,35 and 37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 March 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the process limitation of claim 35, "the at least one conductive signal trace includes at least one segment rotated," must be shown or the features canceled from the claims. No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 35 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention. The undescribed subject matter is the process limitation, "the at least one conductive signal trace includes at least one segment rotated." To further clarify, the term "rotated" means turned about an axis or a center, but there is no original disclosure of a process wherein the trace is turned about an axis or a center.

In the rejections *infra*, reference labels are generally recited only for the first recitation of identical claim language.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 30 and 35 are rejected under 35 U.S.C. 102(b) as being anticipated by Duxbury (5360949).

At column 2, line 61 to column 5, line 65, Duxbury teaches the independent claim 30 limitations of an integrated circuit package comprising: a first conductive layer 36 having a first grid of holes inherently disposed relative to a first coordinate system; a second conductive layer 38 parallel to the first conductive layer, the second conductive layer having a second grid of holes offset from the first grid of holes and inherently disposed relative to the first coordinate system; a dielectric layer 12 between the first and second conductive layers; and at least one conductive signal trace disposed within the dielectric layer, the at least one conductive signal trace disposed parallel to an axis of a second coordinate system that is rotated with respect to the first coordinate system by an angle of 22.5 degrees.

To further clarify the teaching of the first conductive layer and the second conductive layer disposed relative to a first coordinate system and the trace disposed parallel to an axis of a second coordinate system that is rotated 22.5 degrees with respect to the first coordinate system, it is noted that a second coordinate system can be chosen to have an axis parallel to the axis of the trace, and a first coordinate system can be chosen rotated 22.5 degrees with respect to the second coordinate system, and it is inherent that the first and second conductive layer are disposed relative to the first and second coordinate system.

Although Duxbury does not appear to explicitly teach the preambular limitation, "an integrated circuit package," the preamble is accorded little patentable weight because it merely recites the intended use of the product, the body of the claim does not depend on the preamble for completeness, and the structural limitations are able to stand alone. *Kropa v. Robie*, 187 F.2d at 152, 88 USPQ at 481. Moreover, the intended use does not structurally limit the claims, and the product can be used for the intended use.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having

ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Duxbury as applied to claim 30, and further in combination with Tanahashi (6184477).

Duxbury does not appear to explicitly teach wherein the first grid of holes includes holes spaced with non-equal pitch in an x direction and in a y direction relative to the first coordinate system.

Nonetheless, at column 8, line 66 to column 9, line 6, Tanahashi teaches that a first grid of holes includes holes spaced with non-equal pitch in an x direction and in a y direction. In addition, it would have been obvious to combine the product of Tanahashi with the product of Duxbury because it would advantageously provide the first conductive layer of Duxbury. Furthermore, it is inherent in the combination of Tanahashi and Duxbury that the y direction is relative to the first coordinate system.

Applicant's amendment and remarks filed 9-16-3 have been fully considered, are addressed supra, and are further addressed infra.

Applicant refers to "the phone interview of August 19, 2003." However, there is no record of this phone interview in the application. To this end, applicant is respectfully reminded that it is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file.

In addition, applicant contends that "angle 610 in Figure 6" supports the claim 35 limitation, "the at least one conductive signal trace includes at least one segment rotated."

This contention is respectfully traversed because angle 610 is a static angle depicting a relationship between layers 400 and layer 500. As such, angle 610 in Figure 6 does not show the process feature pertaining to the trace of claim 35.

To this end, attention is directed to 37 CFR 1.83(b): "Drawings may include illustrations which facilitate an understanding of the invention (for example, flowsheets in cases of processes, and diagrammatic views)."

Applicant cites specific specification portions as support for the claim 35 limitation, "the at least one conductive signal trace includes at least one segment rotated."

However, it is respectfully submitted that there is no support for this limitation at the cited portions of the specification.

To continue to afford applicant the benefit of compact prosecution, it is noted that the cited portions appear to teach rotation of layers 400 through angle 610, but do not teach rotation of the traces.

Also, applicant alleges that Duxbury does not teach "offsetting a second conductive layer having a second grid of holes from a first conductive

layer," because, Duxbury teaches, "the upper mesh conductors 36 are parallel to the lower mesh conductors 38."

This allegation is respectfully deemed unpersuasive because the claims are not limited to offsetting a second conductive layer, and Duxbury is not necessarily applied to the rejection for this teaching.

In addition, applicant asserts that Duxbury does not teach particular limitations of claim 39 and claims dependent thereon.

This assertion is respectfully deemed unpersuasive because the application does not contain claims 39 and claims dependent thereon.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any telephone inquiry of a general nature or relating to the status (MPEP 203.08) of this application or proceeding should be directed to Group 2800 Customer Service whose telephone number is 703-306-3329.

Any telephone inquiry concerning this communication or earlier communications from the examiner should be directed to David E. Graybill at (703) 308-2947, or after about 02/05/04, (571) 272-1930. Regular office hours: Monday through Friday, 8:30 a.m. to 6:00 p.m.

The fax phone number for group 2800 is (703) 872-9306.



David E. Graybill
Primary Examiner
Art Unit 2827

D.G.
13-Dec-03